SHANGHAI'S EFFORTS TOWARDS INTERNATIONAL FINANCIAL CENTER: CHALLENGES AND OPPORTUNITIES OF FINTECH

STUDENT NAME

DATE

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# Introduction

##  Background information

By 1949, Shanghai was the largest financial center in China and across Asia. During this time, Asia had more than trust companies, 200 private lenders, 24 state banks, and other commercial organizations based in Shanghai. Besides, it was listed as the third-largest stock market across the globe, where London and New York stock market. Over twenty years after the open-door policy in China, Shanghai is looking forward to its development to an international financial center (IFC). According to the people’s daily (2002), Shanghai’s mayor has openly indicated that they attempt to reach IFC within 20 years.

Heilmann (2005) posits that Shanghai's rapid financial sector development has been fast for the last decades or so, which has accounted for almost 15% of Shanghai in 2000. It already has a domestic financial hub in China. According to the people’s daily, since 1991, the municipality, the stock market has rapidly developed, making Shanghai a center of financial activities like bond trading, interbank lending, fledgling features, and commodity trading and foreign exchange trading. Besides, it has gained popularity as an epicenter for international financial integration and China. The listed international banks in Shanghai account for almost 50% of loans, deposits, and assets of all international banks in China. Examples of these banks include; Citibank and Standard Chartered Bank, Hong Kong, and Shanghai Banking Corporation. According to people’s daily (2002), Shanghai was made a regional headquarters by HSBC and used as a testing ground for Chinese external financial liberation policy. The drive for Shanghai to IFC has become a hot topic in the financial press. However, very few researchers have studied based on this topic. This paper aims to investigate various challenges and opportunities of Fintech to make Shanghai an international financial center.

##  Statement of the problem

In the history of China, financial technology mainly focuses on Shanghai. After the opening of foreign trade in 1841, Shanghai has become the most prosperous and the most significant financial center in the Far East. Before the WW2, Shanghai hosted over 200 private lenders, 33 foreign banks, 24 state banks, and trust companies. Besides, it hosted one of the global largest stock markets, along with New York and London. However, due to the Sino-Japanese War, Shanghai closed its financial activities until 1978, following the communist rule. Later in 1990, after the initial national economic reforms in China, Shanghai restarted its economic reforms. Since then, the economy of Shanghai has been growing by more than 125 per year. Besides, the city's financial activities have started to regain a stable status on the ground of the city. Currently, Shanghai is the largest financial center in China, and it is becoming the leading international financial center across Asia. In 2009, the State Council of China made Shanghai the most extensive international financial center despite RMB's global position in 2020 and the Chinese economy. Besides, their ambitions go to make Shanghai the leading world-class international financial center.

A gap exists between Shanghai and the current IFC like New York, Tokyo, and London. For example, Shanghai has a low level of foreign capital flow and a shallow capital market. Although some of the prior studies have discussed Shanghai's IFC development, no complete study has investigated the challenges and opportunities of Fintech faced by Shanghai in its effort to develop into IFC. Therefore, this research question was found significant to study.

## Shanghai stock market exchange

Shanghai is the currently the largest financial and commercial center of the mainland China. Early 1990s Shanghai was the leading IFC of Asia. From 1949, the commercial and financial functions of Shanghai started to disassemble, where so many financiers and entrepreneurs moved from Shanghai to Taiwan, Hong Kong or overseas. In1950, Shanghai was burned from FOREX and speculation trading. According to (Luo 2012) by 1956, the remaining financiers and entrepreneurs which operated in Shanghai were all nationalized.

 An economical command was issued where, most financial institutions in Chins and across Asia were relocated from Shanghai to Beijing. All developments pertaining to Shanghai were all directed to fall under the heavy industry mode. As a result, there was development of the Shanghai’s infrastructure and economy. Likewise, Singapore, Hong Kong, and Tokyo secured the top positions in the global economy after rapid development. According to Lai (2006), during the economic reforms of 1978 in China, Shanghai was considered as a “mere shadow of its former self...” Wu (2000) posit that Shanghai’s economic reforms did not take place before 1990, due to its tax revenue contribution role. The development of Shanghai during this period lagged much behind compared to other cities like Pearl River Delta. Other cities like Zhuhai, Xiamen, Shantou, and Shenzhen were specially treated, and received semi-autonomous economic and political rule since 1978.

In early 1990s, Shanghai received these privileges in the second round of the economic reforms of China. According to Gold (1991), these privileges were as a result of political reasons, as the government of China wanted to create awareness of its willingness of economic reforms with Tiananmen Square incident. By 1992, the economic growth rate of Shanghai was beyond national economic growth rate. Currently, Shanghai is the largest Chinese city-level economy, and is ranked among the top highest GDP per capita in in China. Besides, it plays a critical role in the Chinese economic development, as it contain the critical economic zone (the Yangtze River Delta).

##  Aim and Objectives

The primary aims of the study are to investigate the development of Shanghai towards an international financial center. This study's specific objectives include investigating the financial and technology challenges faced by Shanghai in its development efforts towards the international financial center and investigating financial and technology opportunities Shanghai had in its development efforts towards the international financial center.

##  Research questions

* What are the main financial and technology challenges faced by Shanghai in its development efforts towards the international financial center?
* What are the main financial and technologies opportunities Shanghai had in its development efforts towards the international financial center?

##  Significance of the study

There is a variety of importance in studying this research topic. First, the pace of foreign financial integration in China is now increasingly being pushed through external bodies. The fact that Shanghai will be the hub and the contact center of EFL of China, the extent to which it will get to an IFL, will go a long way to determine the smooth global integration of China. The study will provide about the economic implications in China, and its regional competitors like Singapore and Hong Kong, resulting in the transformation of Shanghai to the international financial center.
 Building on various work of literature, this study aims at analyzing development of Shanghai towards the international financial center in the following manner. Thus, section two entails a literature review based on the challenges and opportunities of Fintech as driving forces behind the development of Shanghai towards the international financial center.

After chapter literature review in chapter two, chapter three entails research methodology. Chapter four; data analysis, represent in tables and graphs. Chapter five entails the discussion of the findings. Chapter six summarizes the research findings, study implications, and recommendations.

# Literature review

## Introduction

This section entails the theoretical framework applied in the research and a review of the studies done by previous researchers and scholars based on the development of Shanghai towards IFC. It contains a theoretical review and empirical review based on financial and technology challenges and opportunities.

## Theoretical review

As a result of multi-faceted nature of IFC development and its contribution to in economic development, different theories have been proposed to study different aspect of IFC. This part presents a review of the applicable theories that elaborate on the Fintech and associated challenges and opportunities. The theoretical reviews covered are; world cities theory, place theory, endowed capacities theory, and scale economies theory.

### Word cities theory

Reed (1980) based his study, which focused on the ascent of Tokyo as the leading IFC in Asia between 1900 and 1975. He paid much of his attention on association (cross-border) between centers. Besides, he constructed the evaluating index for IFC, including banks' financial assets and bank links. However, his research methods provided a detailed international importance association on the development of IFC.

### Place theory

This theory employs factors such as hinterland proximity, and geographic clustering and spatial analysis to examine the IFC formation. The threshold and the higher the value of goods and services, the more the number of customers are willing to buy them. Cities' locations are important in deciding their economy’s importance, as a more accessible city is likely to become trading and commercial center. Commercial services like banking activities are critical when the threshold value makes the customer more willing to go for it even in a long distance. Consequently, this leads to the formation of geographically accessible and popular IFC (Christaller, 1966).

Sassen (2001) based her study, which focused on global cities' theoretical framework other n place theory. She described global city as a city with vast international financial activities and serves as a center of the global economic system. Since the global city has been used interchangeably with IFC, she argued it gave room for globalization due to its involved global activities. In global cities, the host country's social and economic activities are first clustered, and other countries' exports are distributed in the hinterland.

### Scale economies theory

According to this theory, IFC is formed as a result of the clustering of financial activities. Tschoegl (2000) argued that economies of scale associated efficiency gains in clustered financial activities created information symmetries, reduced transaction costs, and increased knowledge about the economies. The city-level economic aspects of IFC were the subject of the study by Tschoegl. They included internationally influential baking organizations, the presence of large global companies, and capital market development.

Scale economies theory, place theory, and world cities theory have been in the first position of in Literature review contributing about IFC. Using various IFC aspects proposed by these theories, a trend has been formulated which explain IFC in a financial and technological approach.

Lai (2012) conducted a study to investigate the financial and technological factors contributing to the development of Shanghai to IFC. Their studies used both microeconomic and macroeconomics factors to measure the IFC development of Shanghai. Other several studied have focused more on financial factors includes, Azin and Duenwald, 2002; Laurenceson et al. 2003; and Laurenceson and Tang, 2005),

McGuinness and Harris (2011) carried a study to compare the financial development between Hong Kong and Shanghai stock exchange. The two market’s cross bounder financial activities information and detailed capital indicators were placed side by side. Their study found that Shanghai’s development towards IFC lagged behind compared to Hong Kong’s IFC development. More so, Campanella (2018) investigated the level of Shanghai’s and Singapore’s IFC development. Using the financial data, they found that there is a significant different between Shanghai’s IFC development and Singapore IFC development. They revealed that Singapore was much ahead of Shanghai in IFC development. Besides, they indicated that some of the area seemingly even hard to cover.

### Endowed capacities theory

Endowed capacities theory has focused on explaining the development of IFC using the host countries' political and macroeconomic context. Although this theory is still nascent, the nature of the developing countries' status has contributed to the study of IFC development based on a country's specific conditions. Li (2009) explains the development of Shanghai to IFC based on the development of international capital flow in China. This theory argued that Shanghai's re-emergence as a leading IFC was contributed by the rising global economic status in China. Besides, the future development of Shanghai will eventually be based on the embracement of global financial integration by China. Wong (2004) argued that the future of Shanghai's IFC status would depend on the lifting of capital control in China. That is, Shanghai must be internationally open before becoming internationally dominant. However, for Shanghai to be the leading IFC by the end of 2020, partial liberation would be sufficient in achieving the Chinese state council set objectives (Cainey, 2010). Therefore, China needs to concentrate on domestic financial activities in collaboration with Shanghai to make it a leading financial center in the capital market of mainland China. Consequently, this will catalyst its development as a leading IFC. Despite the development of Shanghai as an IFC, it will retain much of its activities to China's domestic need, based on the fact that China is a highly growing economy and the dire need for financial depth and diversity.

The above literature present different but related studies, based on IFCs. They all focused on different complex nature of financial centers. Place theory represent the influence of location and access to the hinterland market on IFC development. Scale economies theory on the other side creates additional emphasis on the role of the size of financial markets and diversity of their products. However, the endowed theory assumes that government support, and public policy, which involve development of infrastructure and institutions foster development of IFC.

## Empirical review

There are few empirical studies on the development of Shanghai toward IFC and its related Fintech challenges and opportunities. Therefore, this part requires intensive research to support the study. However, the available prior studies are discussed, giving mixed results.

Past studies examined challenges and opportunities for Fintech and their effect on the development of Shanghai to IFC. Despite the effort by the previous studies on Shanghai efforts to IFC by 2020, the effects of challenges and opportunities of Fintech remains unclear. It is assumed that the Fintech challenges limit Shanghai’s development, while the Fintech promotes the development of Shanghai as an IFC. Nevertheless, the connection between Shanghai's development towards the international financial center and the challenges and opportunities of Fintech remains inconclusive. A mixture of the findings from the prior study, depending on the period the study was carried on, and the type of financial organization was used in the study. Prior study based on the Shanghai efforts to IFC include; Chen (2016), Meyer (2018), Navaretti et al. (2018), and Ng and Kwok, (2017).

The history position of Shanghai as the leading IFC in the Asia and as a dragon’s head of financial activities in China have exhibit the role of Scale Economies Theory and Place Theory. According to Gaubatz (1999), the most significant change in Shanghai is its transformation from the past status to its development potential for the future. The Shanghai’s phoenix-like re-emergency is directly associated to economic reforms in China, and subsequent changes in the political organizations and macroeconomic environment. This paper is therefore is mostly based on Endowment Capacities theory. However, there are very few reviews based on the Endowment Capacities theory. There are very limited work of literature, based on the endowment capacities theory. Besides, the existing literature ignored the statistical evidences and historical background of Shanghai and thus fail to provide the required knowledge for the current Fintech problems affecting Shanghai towards development to the IFC. Therefore, studying the challenges and opportunities of Fintech influencing Shanghai's efforts towards international financial center, require in-depth research and critical thinking.

The tech advancements and innovations that are a result of technology applied to people’s everyday lives gas contributed highly in changing and impacting the structure and practices that people are used to having. Tech innovations therefore are the highest and largest impacts on our daily lives as the world continues to embrace more creative and industrious individuals (Pollari 2016). Fintech has a high impact on the world’s financial markets resulting to challenges and opportunities in the financial world. This will definitely impact financial institutions which goes further to financial institutions and finally international and local financial centers. Shanghai has grown in terms of financial institutions with the growing of China’s economy and the historic opening of Chinese financial markets. Fintech has presented various challenges and opportunities to financial centers our main focus being Shanghai becoming an international financial center. Many investors have raised eyebrows over the impacts Fintech may bring to financial services and eventually disrupting business in most financial centers such as Shanghai, China. As the year 2020 advances most experts in the financial field expect some of the biggest trends brought in by Fintech’s disruption of the financial market. Some of the most foreseeable trends are such as:

*Domination of AI and machine learning*

AI will be expected to grow as an important influence on Fintech. This entails the use of robotics to automate the very basic tasks in the field of finance. The chatbots for customer’s service that are AI enabled will continue to spread over the financial industry in many IFC as well as the use of machines to asses’ risks and identification of crimes such as cyber-crimes (Vives 2017).

. The use of this AI systems and machine learning in administrative financial tasks will have several implications on the job market in the financial industry.

*The financial industry will state to consolidate*

The year 2020 will introduce various partnerships and consolidations in the financial industry. This implies the traditional banks will need to partner with tech startups that develop the tech and innovations for their own survival in the changing financial industry (Thakor 2020). The partnership between Fintech startups and other organizations will also be crucial for the smooth running of things in the financial institutions. Partnership between Fintech startups and other marketing firms, big data and other non-Fintech software companies will be essential for retaining customers.

2.3.2: Fintech challenges facing the financial industry

There has been many revolutionary changes in the financial industry that have been caused by advancement in technology. The way people engage with their finances has been completely changed and altered dramatically. Companies by Fintech are at the frontline of the changes that will most likely disrupt the industry bringing forth some challenges that need to be resolved before the industry is badly damaged. Some of this challenges are such as:

* Cyber security

Many governments and businesses in the world have been met by one common challenge which is defending themselves from constant cyber-attacks. Fintech firms are very much interested in this major challenge in the financial industry due to the fact that there is a huge amount of client’s data that needs to be protected. Cyber criminals have become more sophisticated in the kind of attacks they launch. To add to the matter the frequency of attacks have become major especially since the year 2018. There has been major breaches witnessed in the two year period that has seen a lot of technological innovations and changes to the financial industry (Ng and Kwok 2017). This has compelled companies and organizations in the financial sector to put in a lot of time and money than ever before to find cyber-attacks. Researchers in the field have shown that businesses had spent an average of $11.7 million on cyber-security alone in the year 2017. However it’s important to understand that not all organizations and Fintech company has that kind of money to throw into fighting cyber-attacks. The question that remains on many people’s minds is how such organizations minimize their general exposure to cyber-attacks with traditional methods of ensuring cyber security proving to be unsustainable. This has to happen keeping in mind the need for low cost mitigating the problem at hand. At this point experts show that it may be the right time to deploy dynamic security solutions such as (MTD) that is ‘Moving Target Defense’. This is a good strategy that keeps changing and shifting points of attack by hackers and cyber-criminals. The attacks will eventually be frustrated and bare no fruits which is the main aim of this solution. This method has already been deployed mostly in US and Europe and many other financial institutions and businesses were expected to have followed the example by mid-2019.

* Retaining the human touch

The ability of Fintech to disrupt the financial industry and upset the status quo in the financial sector is one of the ways one can define the organization. This is however not always going to be for the better in the financial industry as some aspects that are crucial in the traditional system are also going to be interrupted. The absence of ‘human touch’ is one of the key areas traditional systems will remain ahead of Fintech firms (Larsson 2018). Fintech systems have left clients feeling as if they are communicating to faceless entities which is not good as far as customer’s service is concerned. The use of AI systems and machine learning has made that change possible which has replaced the natural human interaction. This becomes an issue or problem when Fintech startups are going to be forced to convince clients especially of the older generation to abandon their traditional banks and financial institutions. The lack of human touch can be disastrous especially when companies over rely on technology. IT meltdowns may happen leaving many clients unable to access their accounts. Such consequences makes the loss of ‘human touch’ an issue in the banking sector. This is an issue that Fintech companies to resolve at an early stage to avoid dire consequences if the challenge prevails. The question now is what can the Fintech firms or companies do in order to curb this rising problem? They should for a start consider putting customer’s needs and experience as priority and integrating them in every new technology introduced to their system. This means that this firms will have to rise above the occasion and offer services to their customers that they will never get anywhere else which calls for high levels of creativity. Customer support is paramount hence the companies should ensure all the support needed by clients is offered at all costs and in the manner that will convince them that they are valued. Communication to customers is essential to customers hence Fintech companies should be able to offer live telephone services to retain their customers. Many businesses will need to ensure they offer more direct engagements with their customers in order to show the dedication to serving their personalized needs. However, Fintech needs to do more research on this subject matter so as to come up with tangible and helpful solutions to this foreseeable future of service delivery.

## Summary of the literature review

A variety of theoretical frameworks have attempted to elaborate on the development of the Shanghai stock market toward IFC. World cities theory, place theory, endowed capacities theory, and scale economies theory have been discussed in section. Several prior studies have been reviewed based on the Fintech challenges facing Shanghai and opportunities for Shanghai’s efforts toward IFC.Secondary research into this topic will also show the challenges and opportunities of Fintech firms to the financial industry. There are various changes that will result to several trends in the financial sector such as constant domination of AI systems and machine learning in basic administrative financial tasks. There are various challenges that have as a result of Fintech disruption of the financial industry such as cyber-attacks that have continued to pose a danger to client data integrity and the loss of ‘Human Touch’ which is a crucial part of service delivery. The finding of these prior studies has given a variety of results.

# Methodology

## Introduction

This section involves the researcher's methods to objectively establish the financial and technology challenges and opportunities. The chapter contains a research design, the population and the sample of the study, research techniques and tools, data collection, and data analysis. This study has adopted a cross-sectional design of research to gather evidence and information relevant to the main topic. The dissertation will try to understand the connection between Fintech and Shanghai’s status of international financial center.

## Design

Turel and Yuan (2006) define research design as a procedurally acquired method by the researcher, which enable him/her to answer the research questions objectively, and validly. The research design is used to improve the researcher's ability to conceptualize an operational plan to embark on various available techniques to complete the study and ensure that the procedure used responds to the research questions validly, objectively and precisely. The research will use a descriptive design. The study is descriptive as it involves a description of banks listed in the Shanghai stock market and its customer’s perceptions. It identifies various challenges encountered by the Shanghai stock exchange market in becoming an international financial center. It also identifies various financial and technological opportunities in Shanghai. The appropriateness of descriptive design in this study is that it will utilize both the quantitative and qualitative data provided to establish the challenges and opportunities available for Shanghai in its development to IFC. This method is utilized in data collection, summarization, presentation, and interpreting the results. It was thus obtaining more clarity of issues of interest. Besides, descriptive design was used as a result of the researcher’s interest in the real situation rather than variables manipulation.

## Population and sample of the target

According to Matthew et al. (2012), a population is a group of individuals, events, or objects that exhibit specific characteristics. The population of the target is the banks listed in the Shanghai stock market exchange. This population provides information that helps the researcher to answer the research questions on the challenges and opportunities of Fintech. Since there are various financial institutions listed in Shanghai, the study was a survey. For the collection of primary data, the study focused on banks listed in Shanghai. The researcher believed that they contained the relevant information based on the challenges and opportunities of Fintech. Random sampling was used to determine the sample of the respondents to be used in this study.

## Study inclusion criteria

This research study is a combination of both primary sources of data and secondary sources of data that helped in the discussions of the main topic. This involves survey from relevant population as well as other researchers work and opinions of the concepts and theories that were discussed earlier in the chapter above. Finally there are also opinions as stated by the main researcher in this study dissertation.

## Research instruments

Primary research was done through surveying which was carried out using two main research instruments that is:

1. Questionnaires

A questionnaire is a written document that consists of questions that are aimed at discovering and finding out what the masses are thinking. This may include customer feedbacks, polls, political research and social sciences research. There are various guidelines towards the formulation of questionnaires that researchers can adopt. However (Bell and waters 2014) and (O’Leary 2014) both offer very precise and clear methods of creating questionnaires from begging to end. The first step is approval by the relevant authorities which was done prior to the administering of the questionnaires by the researcher. Questionnaires need to be created based on the research questions and the objectives of the main study in order to remain relevant to the main topic of the dissertation. It’s also important to define the measurable of the research way before starting to formulate the questionnaire. Many researchers are prone to making mistakes such as poor wording, biasness that can be problematic to the respondents. The researcher should avoid the possibility of such mistakes to obtain relevant and reliable results for the accuracy of the findings and conclusions.

1. Interviews

This are used in order to obtain detailed results to the answers asked in the questionnaires for the purpose of qualitative research. The interviews are then transcribed into a computer file for references by the researcher during data analysis. The importance of interviews is seen when trying to find out the real story towards the participants experiences and the depth of information that is important when making conclusions and recommendations. Open-ended questions are normally asked during interviews in the aim of obtaining detailed and in depth perception of the respondents to the issues being discussed (Afolayan and Oniyinde 2019). On the other hand closed-ended questions in an interview will mainly aim to force the respondent to answer within a particular parameter with less details and depth. The interviewer must understand several things before going to an interview. One of the most important things to understand is being familiar with the topic of discussion as well as being patient and gentle with the respondent to have a smooth session. There are different types of interviews that can be used in combination or the researcher could opt for one. The best method however, requires the interviewer to use several types of interviews to get a feel of the general concepts that will be passed during the interview (McGrath et.al 2019). The types include: one-on-one, focus groups, telephone interviews, and E-Mail interviews. The interviewer should always keep the questions clear and remain focused on the main objectives and goals of the study.

Secondary research was also carried out in line with the main topic of this study. The secondary instruments are such as:

1. Public libraries

This dissertation also gathered information and data from public libraries that contain information relevant to the study topic. Previously done research on international financial matters and relations can also be found in the public libraries. This is an instrument that is very crucial to research since it contained documentation on international financial centers, as well as regulations and innovations that have come up in recent years to change the financial industry (Pournaghi 2017). The research material found in public libraries is accurate and timely which is relevant to deriving findings, conclusions and recommendations to the main study topic of this dissertation. Governments and international publications on banking both local and international can also be found in the public libraries.

1. Internet sources

The advancement in technology has made secondary research very easy for scholars and non-academic researchers. The internet has become a very reliable source of data and information from many fronts of the world. Most people gather important facts and information at their comfort with the availability of internet connection in most if not all parts of the world (Tomar et.al 2018). General knowledge on financial markets, financial trends and emerging trends can be accessed freely and easily be the public. All that id required is a reliable source of internet connection. Technology has made research from internet sources very simple. Two decades ago researchers needed to access computers in libraries and institutions of higher learning but with the advancement of technology smartphones can also conduct the same tasks that computers perform. In fact use of smartphones in research has become more common than the use of computers since many people now own smartphones around the globe. Even so, the use of internet sources in research is not very accurate as some sites may be unreliable and inaccurate.

1. Media outlets and news

Media outlets are some of the most used sources of information around the world. Everyday people from all over the globe follow up on political, economic, social and environmental matters on the media outlets and news depending on their preferred topic and interests. The media outlets are essential in giving information on a real time basis as well as past details on financial and economic matters stored in official media sites relevant to the main topic of this study. Outlets and news channels such as CNBC and CNN give detailed stories on world economic, political and financial matters that are important to investors and other experts in the specific areas. Media outlets are almost the main ways in which governments and organizations pass updates, changes and certain messages top their citizens and relevant authorities. Investors use this sites and outlets to study certain financial patterns in specific area of interests to their ventures. Therefore Media outlets were used to analyze concepts in this dissertation relevant to the main study topic. Information on Fintech and its connection to Shanghai as an international financial center was derived and collected from some of the world’s most reliable media outlets and news channels. Interviews conducted by experts in the financial sector were essential for the purposes of knowing other people’s opinions on the main research questions.

1. Academic journals, newspapers and business magazines

This were a great source of information and data regarding the main topic of this study. Written research papers and dissertations by other scholars on the topic of study as well as other experts in financial matters are stored in virtual and physical libraries. Newspapers also contained updated and accurate information on the current trends in the financial sector as well as the challenges and opportunities presented by technological innovations in the sector. Newspapers are a reliable instrument in secondary research.

## Data collection

The study will use the data exclusively collected from banks listed in Shanghai. The data will be collected using administered online questionnaires and interviews. Thus all the data used in the study was primary data. The banks’ stakeholders are the respondents of the target. Well-structured questionnaires are used as data collection tools. The questionnaires consisted of both closed and open questions. However, close-ended questions consisted of various responses that helped the researcher in to bring out more valid recommendations. Most of the questions are single answered questions, while others require multiple choices. The researcher keeps the register of the questionnaires and arranges the data as per the time of response to ensure the normality of information. The questionnaires were mainly administered to students and young professionals the financial sector since they are found to be the main adopters of financial technology into their daily lives as the research will show at a later stage. Approximately 300 individuals participated in the questionnaire section from different institutions and banks in Shanghai. The interviews were mainly conducted among bankers that are listed in bans across shanghai. The bankers were the main target due to their feedback on how Fintech has affected service delivery and the number of customers they serve in the bank compared to before Fintech was adopted by many customers. The interviews were done among 20 individuals from selected banks in the city of Shanghai.

## Data analysis

All data will be analyzed using IBM SPSS version 22. SPSS software was used in the analysis, as was the researcher found it friendly to use. Quantitative analyzes will be used in the analysis. That is descriptive and inferential statistics.

## Ethical considerations

This study was submitted for approval through the ethics and risks assessment procedure forms filed as required by the relevant office. The data to be collected requires a lot of procedure and follow up by relevant authorities to ensure accuracy and originality. The confidential data will be stored and protected by secure systems. The sources used are from trusted sites and credible people in the financial sector.

## Summary of the chapter

This chapter involved the research design that the researcher used to carry out the research, which was descriptive design. The chapter also highlights the population and the sample and sampling methods. The chapter also highlighted data collection and data collection tools, where questionnaires and interviews were used to collect data based on challenges and opportunities for Fintech. The study targeted banks listed in Shanghai as they are believed to provide financial and technical information required in the study. Lastly, the chapter showed how the gathered information would be analyzed through quantitative methods; descriptive and inferential statistics.

#  Findings

## Opportunities for Fintech products

1. *Perception for internet banking products*

Figure 4. : Preferences for Internet banking products

A considerably high number of the participants 55% showed preference to internet banking products against typical bank products 47%. In Shanghai the growth in internet banking has been the main pillar of financial technology as shown in the results above. Many people are choosing internet banking over traditional banking services.

Fintech has shown its full potential especially in China which is the global leader in internet banking services as well as financial technology investments. The perception of internet banking in China has been mainly linked to the advancement in financial technology in the region. Many people are starting to embrace internet banking services due to the fact that the population of young people is increasing and the main workforce is between the ages of 30-50 years. Internet banking is growing in popularity among the younger generation and even some significant percentage of the older generation. The growth of Fintech is also highly contributed by the growing use of smartphones especially in China. Studies have shown that there are 700 million smartphones in use in China alone. That shows that the number of people with access to the internet is more than half Chinas population. There is a high possibility that most if not all smartphone users are seeking internet banking services over traditional banking products that have been disrupted by Fintech firms. Fintech has a huge opportunity with such factors in play since their popularity will continue to increase in the coming years. Many traditional banking institutions will start to embrace financial technology in their firms so as to continue competing with tech giants in the financial industry. Internet banking has offered a solution to most people who want to avoid going to the physical banks for services and products. Many individuals especially the youth and the older young adults now have internet banking accounts that only means more clients for Fintech companies contributing highly on the concept of Shanghai being an international financial center. China’s economic growth and position in the globe is another way Fintech has grown more popular in the Shanghai financial industry which contributes to Shanghai’s prominence in the global financial market. Even so, a significant percentage of people on the other hand still prefer the traditional banking services and products. This is mainly over the tendency to reject change. Many people especially of the older generation still do not trust internet banking services and have not embraced the changes brought by Fintech companies. However the prominence of financial technology will continue to rise as more opportunities for Fintech continues to present in the coming days. Technology and innovations are still finding their way into the worlds day to day lives. Complete change in the financial sector will take some time before it takes significant attention in people’s ways of life.

1. *Public support for internet banking products.*



When the participants were asked if Fintech products should be supported, a huge number of them agreed. 35% agreed that Fintech products should be strongly supported and 33% agreed that these products should have a universal advocacy. These trends show that internet products are increasingly becoming acceptable in the society.

The internet banking services are slowly becoming acceptable in the present society with services in the financial sector becoming advanced with new technology and innovations.

## Challenges facing Fintech

*a) Ability of Fintech products to satisfy consumers*

*Even though majority of the people in the sample were satisfied with Fintech products 52%, a considerable number 48% still perceive the Fintech products to be unsatisfactory, they fail to meet expectations.*



Figure 4. : Descriptive statistics for satisfaction levels of Internet products

We used a t-test to establish if there was a significant mean difference in the online shopping frequency who were satisfied with online products against those that weren’t.

The ratio between those that were satisfied by Fintech services that is online products and services and those that were unsatisfied is almost equal showing a slight difference between the two factors. Fintech’s products and services have failed to meet customer’s satisfaction mainly due to the loss in “human touch” a factor that is very important in maintaining customers in financial sector. The lack of direct human engagement that has taken over due to financial technology has been the main cause to lack of customer satisfaction. Most online products are virtual and the customers want direct engagement with human service providers which boosts their esteem. Many would wonder why esteem is linked to this unrelated factor. That is because customers need to trust the products and without the ‘human touch’ then many customers feel less appreciated and hence not satisfied. The client’s expectations as seen in the literature review is crucial in the financial sector. Customers’ expectations if not met may lead to unsatisfactory services. Majority of the respondents say that they are satisfied by online products due to the convenience and ease in access which works especially for young people who want to do every transaction from their phones. Meanwhile groups and people from the older generation insisted that they did not connect well with online banking products since they still prefer the direct human interaction and engagement in traditional products and services in the financial sector. Nevertheless the results above show that Fintech companies are still faced with the challenge of incorporating direct and real human interaction to counter the challenges posed by AI and machines that have replaced human labor in the financial industry. The challenge of unsatisfied customers is Fintech’s main challenge since the traditional financial institutions especially in China continue to pose a threat in the area of customer satisfaction.

The tables below show there are no huge difference between the people that purchased their products online and were satisfied and the ones that were not satisfied.

***Group Statistics***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Overall assessment* | *N* | *Mean* | *Std. Deviation* | *Std. Error Mean* |

***Group Statistics***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Online shopping frequency* | *Satisfactory, meets or exceeds expectations* | *83* | *2.65* | *1.194* | *.131* |
|  | *Unsatisfactory, falling short of expect* | *76* | *2.71* | *1.141* | *.131* |

TABLE 4. : Descriptive statistics for online shopping frequency and overall satisfaction levels

***Independent Samples Test***

|  |  |  |
| --- | --- | --- |
|  | *Levene's Test for Equality of Variances* | *t-test for Equality of Means* |
| *F* | *Sig.* | *t* | *df* | *Sig. (2-**tailed)* | *Mean Difference* | *Std. Error Difference* |
| *Online shopping Equal variances frequency assumed* | *.879* | *.350* | *-.32**3* | *157* | *.747* | *-.060* | *.186* |
| *Equal variances not assumed* |  |  | *-.32**4* | *156.705* | *.747* | *-.060* | *.185* |

TABLE 4. : Independent Samples Test of Online shopping frequency against satisfaction levels

A T-test established there was no significant difference in the number of online purchases made by participants who were generally satisfied with online products (M=2.65, SD=1.19) against those that were not (M=2.71, S=1.14). Thus, we can make the presumption that satisfaction is not a significant predictor of purchases made online.

b). Leading factors affecting purchase of Fintech products



Figure 4. : Descriptive summary of the reasons against Investing in Fintech products

When asked what was the main reason influencing their decisions not to invest in Fintech products, majority of them reported low funds (34%) and fear of risk (23%) as the leading factors affecting their decision-making.

The quantitative results clearly show that there are various factors that contribute to the reluctance of many individuals in investing in Fintech products. The majority gave lack of funds as the main reason to which they have not purchased Fintech products. Studies and research show that the main reason is perceived risks for Fintech products that make people give the former reason to mask the perception they have on the products. Fear of risks was reported to be the second main factor which is sensible in the fact that most people are not aware theoretically of how Fintech products work. Other factors such as lack of time, lack of suitable benefits and lack of theoretical know how on the products have contributed very much on the two major reasons connected to the reluctance seen on Fintech products. This is to show that customer satisfaction is not a significant only factor that has challenged the purchase of Fintech products.

***Reason for not investing \* How much money can you set aside for investment Cross tabulation***

|  |  |  |
| --- | --- | --- |
|  | *How much money can you set aside for investment* | *Total* |
| *under 2000* | *2000-**5000* | *5000-**10000* | *10000-**20000* | *0ver 20000* |
| *Reason for not investing* | *fear of risk % within How much money**can you set aside for investment* | *20.0%* | *25.0%* | *20.9%* | *18.6%* | *20.0%* | *20.1%* |
| *lack of theoretical know* | *% % within How much money can you set aside for investment* | *15.1.0%* | *20.9%* | *16.7%* | *12.5%* | *.0%* | *15.1%* |
|  | *lack of time % % within How much money**can you set aside for investment* | *18.60%* | *10.4%* | *18.6%* | *10.4%* | *10.4%* | *3.2%* |
| *low funds % % within How much money**can you set aside for investment* | *50.0%* | *37.5%* | *35.4%* | *25.6* | *.0%* | *34.0%* |
| *there is no % within How much money suitable product can you set aside for**investment* | *53%* | *24.3%* | *26.3%* | *12.5%* | *10.0%* | *5.1%* |
| *Total % within Reason for not investing* | *23.0%* | *35.2%* | *19.5%* | *18.0%* | *4.3%* | *100.0%* |

TABLE 4. : Cross-tab analysis of Reason for not investing against the amount of money the study participants were willing to spend for online products

Statistics from the cross-tab analysis show that majority of the participants were willing to invest less than USD 5, 000 in Fintech products. Very few (4.3) were willing to invest more than USD 20,000. Low Funds (34%), Fear of risk (20.1%) and lack of knowledge about online products (15%) were the leading factors influencing the amount of money the participants were willing to use for Investment.

The factors with lower percentages among the ones seen above show clearly that consumer acceptance towards Fintech products is the main challenge for the Fintech firms since they will have to first convince more than half their potential customers why their products are more suitable than traditional products especially in the financial sector. Perceived risks, low funds and lack of knowledge about online products are the main reasons this paper will discuss as to contributing to the acceptance of Fintech products. All this factors are related to one another in one or two ways and therefore it’s even difficult to separate their influence on Fintech’s awareness in most parts of the globes especially China. People will resist change mainly because they are afraid of the risks new technology and innovations may bring especially when it comes to online purchases where many reports of fraud and theft have been heard. Most people still perceive online businesses as fraud hence will not put in so much into them. Most sites may not be reliable. The customer’s data is at risk of being exposed to people and organizations that are not related hence the reluctance and fear for Fintech products.

***Chi-Square Tests***

|  |  |  |  |
| --- | --- | --- | --- |
|  | *Value* | *df* | *Asymp. Sig. (2- sided)* |
| *Pearson Chi-Square* | *18.831a* | *16* | *.28* |
| *Likelihood Ratio* | *16.475* | *16* | *.20* |
| *Linear-by-Linear Association* | *.175* | *1* | *.66* |
| *N of Valid Cases* | *159* |  |  |

***Chi-Square Tests***

*a. 10 cells (40.0%) have expected count less than 5. The minimum expected count is .26.*

TABLE 4. :Chi-square tests

A chi-square test show the difference between the groups to be significant, X2 (16)

=18.83, P=0.28

*On the side of the banks, the bank managers expressed, difficulties in recruiting suitable personnel,(30%) and high cost of inputs required to sustain Fintech products (21%)as the leading factors affecting development of Fintech products. Lack of operations required for post build- operations, challenges in the inherent management mechanisms and inadequate skills from the original team came in third, fourth and fifth respectively.*

Figure 4. : Summary statistics for the difficulties experienced in the development of Fintech products

*However, even though most of the banks reported lack of resources as the main factor affecting growth of Fintech business, most of the bankers seemed not willing to engage in collaborations as a way of leveraging their lack of resources. Fear of critical information diverging out and loss of customers appeared to be the main concern influencing the banks reservations from entering into collaborations with third-party institutions.*

Figure 4. : Clustered bar chart of concerns against third-party collaborations and the willingness to collaborate with the third-party institutions

*Nonetheless, A Chi-square test shows the observed difference in the decision to partner with third party institutions across the groups not to be significant, X2 (5) =8.89 P=0.115*

The findings above indicate that most banks are unwilling to have collaboration therefore hindering the development of Fintech products. It was also observed that banks were leveraging their unwillingness to get into collaboration for lack of resources. The assumption here is that many banks are still resistant to the Fintech movement and evolution for fear of collaboration with tech firms to advance their products and services. Fintech has come to disrupt and stop the status quo in the financial industry as seen in the literature review. Banks are the main financial institutions that will be affected by the changes Fintech have introduced to the financial industry around the globe. Most banks are still operating in the traditional system but will soon need to change their ways failure to which customers will shift. Studies show that Fintech products are still gaining popularity among many people in the all job types. That means the highest earners are slowly embracing Fintech products and within no time will have moved to banks that have embraced the online systems of banking. However the lack of confidence in the online products among bank managers show that Fintech is still a long way from completely penetrating the traditional financial system and influence most if not all customers to try its products. Some other studies show that in some parts in the world such as Shanghai, the intention towards online products has increased making China the leading country in financial technology all over the globe. Shanghai’s financial strengths has risen over the past decade and became the second largest financial center in the world. This prominence has been largely attributed to the growing population of millennial generation and GEN X who form the highest percentage of workforce meaning they are the highest earners. The difference between acceptance and rejection of Fintech products lies in the fact that most people are still trying to understand how online businesses work translating to the fact that they will be reluctant to invest more on online products.

***Chi-Square Tests***

|  |  |  |  |
| --- | --- | --- | --- |
|  | *Value* | *df* | *Asymp. Sig. (2- sided)* |
| *Pearson Chi-Square* | *8.855a* | *5* | *.115* |
| *Likelihood Ratio* | *8.989* | *5* | *.110* |
| *Linear-by-Linear Association* | *4.852* | *1* | *.028* |
| *N of Valid Cases* | *159* |  |  |

*a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.49.*

TABLE 4. :Chi-square analysis

*Regression modelling*

*We carried out a regression analysis to establish how much online purchases were predicted by overall satisfaction in internet products, Reason for not investing, cost of living, and perceived risk with internet banking*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Model* | *Sum of Squares* | *df* | *Mean Square* | *F* | *Sig.* |
| *1 Regression* | *3.678* | *4* | *.919* | *.671* | *.013a* |
| *Residual* | *210.964* | *154* | *1.370* |  |  |
| *Total* | *214.642* | *158* |  |  |  |
| *Model* | *R* | *R Square* | *Adjusted R Square* | *Std. Error of the Estimate* |  |
| *1* | *.531a* | *.47* | *.45* | *1.170* |  |

*a. Predictors: (Constant), overall assessment of your bank, Reason for not investing, cost of living, perceived risk with internet banking b. Dependent Variable: online shopping frequency*

TABLE 4. : A NOVA test and Goodness of Fit test

*Our model explains 47% of the variance in the number of online purchases, R2=0.47, which is significant as observed through the ANOVA analysis, F (4) =0.67, P=0.13*

***Coefficients***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Model* | *Unstandardized Coefficients* | *Standardized Coefficients* | *t* | *Sig.* |
| *B* | *Std. Error* | *Beta* |
| *1* | *(Constant)* | *2.516* | *.475* |  | *5.302* | *.000* |
|  | *Cost of living* | *-1.39* | *.093* | *.033* | *.416* | *.078* |
|  | *Perceived risk with internet banking* | *-.73* | *.064* | *-.091* | *-1.135* | *.258* |
|  | *Reason for not investing* | *-.64* | *.066* | *.078* | *.972* | *.233* |
|  | *Overall assessment of your bank’s Internet products* | *.71* | *.186* | *.030* | *.380* | *.205* |

TABLE 4. : Coefficients

1. *Dependent Variable: online shopping frequency*

Online shopping frequency= 2.5-1.4 cost of living- 0.73Perceived risk with internet banking -0.64 Reason for not investing + 0.71 Overall assessment of your bank’s Internet products

In general, a unit increase in the cost of living, Perceived risk with internet banking and Reason for not investing in online products reduces the number of online purchases by 1.4%, 0.73% and 0.64% respectively. On the other hand, a unit increase in the satisfaction levels for internet products increases the number of online purchases by 0.71%.

# Discussions, Conclusions and recommendation

##  Introduction

This chapter will entail the discussion, conclusion and recommendations as per the main objectives of this study so as to address the research questions.

##  Discussion

5.2.1: Fintech’s challenges

In the study and findings above in chapter four there are various challenges that Fintech is faced with when it comes to penetration of the Financial market. The challenges have been shown through the reluctance of people to purchase online products and even those that purchased did not invest much to it. That means there is a crucial gap in the penetration of Fintech products in people’s everyday life. One of the most popular challenge as highlighted in the findings of this study is:

1. Ability for Fintech products to satisfy customers.

Starting a new customer journey is one of the hardest tasks in business. Fintech products have been seen to fail in the task of customer satisfaction due to the natural outlook of online business transactions. Many customers have further reported to not trusting Fintech products due to the faceless interaction they have with the system. The first step towards attracting customers in business is making them feel appreciated and recognized. According to (Nicoletti et.al 2017) in their book the Future of Fintech, With Fintech products there is only less and less human interaction that makes most customers unable to relate to online purchases and in the end online banking. The trick is making sure all customer’s needs are met and the same time maintain uniqueness and originality to the nature of products and services offered. The local customers need appreciation in order to start considering the products offered by Fintech. The lack of customer satisfaction is directly linked to lack of ‘human touch’ which contributes much into creating suitable perceptions for customers towards the products and services that financial technology companies offer. The study findings in chapter four concur with earlier studies that clearly indicated that customer satisfaction was one of the leading challenges in the financial sector brought by financial technology and innovations in the financial industry. Let’s take a good example such as customer services in the traditional banking system. A significant percentage of respondents from all ages still insist on visiting physical banking halls even though the number that has embraced new trends in the financial industry such as the ones by Fintech, the ratio between the two is almost equal (Varga 2017). That is a big challenge for Fintech since even the ones embracing online purchases still invest little as compared to their traditional banking systems. The people who insisted on traditional banking systems were mostly concerned at the human-human interaction ability of Fintech products and services. The ones who had embraced the services and products offered by Fintech still had doubts on the safety of their personal data.

 There are various factors that came out much clearly from the study carried out amongst banks and bankers in selected financial institutions. The first and foremost as highlighted in the findings chapter is lack of resources to develop Fintech products in traditional banks as likened to the individual level of lack of funds to purchase online Fintech products. It was noted that while lack of funds and resources was a crucial factor leading to lack customer satisfaction, most individuals and banks used that as an excuse leveraged against the lack of confidence in the Fintech products and services. “I do not have much confidence on using digital banking products” said a young professional working part-time. The fear of risks was also among the most highlighted factors by respondents towards the acceptance of Fintech products. The fear of risks in this case can be directly connected to the lack of theoretical knowledge on how Fintech products work.

However with the above factors mentioned as contributing to low customers satisfaction, the concept of customer satisfaction is not the only challenge for Fintech products as seen earlier in the findings. Hence the other main factors as mentioned in the above paragraph. Even so, traditional banking has had a lead in customer satisfaction ahead of Fintech firms due to the human interaction factor which is extremely important when it comes to service delivery in the financial industry (Larsson 2018). The question that remains unanswered is how will Fintech rise above this challenge and be able to meet the specific interests of customers in order to compete effectively against large financial institutions.

Shanghai as an international financial center has been faced with the challenge of Fintech evolution. China’s growing financial technology has a great influence on the challenges that Shanghai as a financial center have towards international financial center status. Given Shanghai’s history in the financial industry, there is high probability that the financial technology has a great influence towards its downfall or its growth depending on the opportunities and challenge that Fintech faces in the financial sector (Arner, 2015). The challenges of Fintech as highlighted in the findings show that Shanghai’s financial strength may not be largely affected since most financial institutions still practice traditional banking. The prominence of online banking however, changes the assumptions slightly since more than half the population embraces Fintech products and services. That makes the financial center in a bit of rough situation since the system has still managed to resist change brought in by Fintech. The collaboration of banks with Tech giants will ensure on the other hand that Shanghai remains competitive as long as international financial center is concerned. On another hand if financial institutions rely so much on tech it may be disastrous as there are factors such as cyber-crimes and IT meltdowns that have serious consequences and could be harmful to Shanghai’s financial strength and prominence.

5.2.2: Opportunities of Fintech

On the other hand Shanghai financial technology contributed much into its venture of international financial center. This study has shown clearly that most respondents had a preference on online banking services and products in Shanghai which has led to China’s financial market being the second largest in the world. Some of the opportunities that were available for Fintech in Shanghai towards being an international financial center are:

1. Growing influence of internet banking

The growth of financial technology in China has witnessed a surge in the recent decade even as smartphone users continue to increase. Internet banking has become a trend many banks are forced to venture into in order to maintain their market share in the financial sector. Shanghai being the largest financial market in China and the second largest in the world has played an important role into the growth of internet banking services. Fintech products have gain popularity among many smartphone users and it’s more likely than more than a third of smartphone users in Shanghai are already purchasing Fintech products due to the growth in internet banking. The reason why internet banking has gained much popularity is because it has significantly low operating costs than traditional banking. Improved quality of services, efficiency and speed among other factors have contributed so much into the growing prominence of internet banking (Church 2017). Fintech companies have seen the opportunities and seized it as many people support their products in Shanghai leading to an expansion of Shanghai as an international financial center in the globe. Online operations have allowed diverse service provision and easy access by clients into their bank accounts at any time. This has made easier for people who are constantly transacting through online businesses and online purchases. People do not have to be held in long and tiring traffic jams trying to get to their physical banks. That time saving factor introduced by Fintech products has made banking so easy and fast in terms of service delivery and management of finances. Traditional time constraints as well as space constraints have been eliminated by the growth of internet banking. Globalization has grown and diversified due to the influence of Fintech which has made it easier for the Shanghai financial market to open up to foreign investment (Pollari 2016). This has enabled an opportunity for Fintech to grow and expand. Reports show that Fintech investments had reached $100 billion by the tear 2019. This not only helps Shanghai to expand its international financial center but also grow its economic strength and power around the globe.

1. The perception of Fintech

China’s youth population who form the largest percentage of work force are a great determiner of Fintech’s perception especially in Shanghai. Trends influenced by innovations in financial technology are gaining positive perception among the millennial generation who form the highest earning group in the present economic times not only in China but also in the world. The average age for the Chinese population is 37 years according to research done by experts in the field of population and demographics. “Most people with the financial capability to support Fintech operations are within age 30-50 who also form most part of the workforce” said a researcher in demographics. Majority of the respondents within this age during the study reported to be using internet banking service as well as other Fintech products. Perception on online purchasing has increased significantly since the emergence of large tech giants in the world. “I purchase most of my goods from the online platforms” said a student living in shanghai. Fintech has made it possible for many people in Shanghai to conduct online purchases and transactions. The millennial generation are the first to support Fintech products and services since they are also the highest internet users. The factor of speed, efficiency and convenience is again seen in this factor (Hu et.al 2019). Fintech companies are slowly changing the perception on online purchasing of products and transactions. The perception is important in attracting many customers and eventually growth and expansion in Shanghai’s financial sector which has contributed much into the international financial center.

However the opportunities in financial technology Shanghai had towards the international financial center cannot be fully exhausted, it is evident that the perception created amongst customers has contributed largely in expanding Shanghai’s financial competition against other financial giants in the world. “The success of financial markets in Shanghai is highly connected to the opportunities that Fintech presented in the financial industry” said a reporter in CNBC during an interview on Fintech products in Shanghai. Perception is therefore important when selling new ideas and trends especially in a system that is mostly reliant on traditional financial systems.

##  Conclusion

Based on the objectives and findings of the study the following conclusions can be made:

1. The growth of Shanghai on the international financial markets has been highly linked to the recent changes and trends brought by innovations in the field of technology. Fintech has been in the forefront of Shanghai’s venture into international financial markets allowing more investors to explore the Chinese stock market and other assets in the area of financial markets. This however was an uphill task as in the intervention by Fintech there were aspects in the traditional financial systems that have remained much more preferred by a significant number of customers especially of the older generation. Nevertheless, Fintech has played a major role towards Shanghai’s financial prominence and helped the sector to grow into a strong international financial center. Even before financial technology and innovations in the financial market Shanghai financial markets were among the largest in the world due to the maintaining of the status quo in the financial industry by banks in the city. Major local financial institutions continue to deal with businesses and government as their main clients hence allowing Fintech to take over the private sector and retail banking services that have contributed to Shanghai’s economic strength. The opening up financial markets to international investors finally made Shanghai a force to reckon with in financial matters hence contributing much into its international financial center status.
2. The level of risk that comes with financial technology might be of dire consequence for Shanghai as an international financial center if not managed properly. The aspect of regulations comes in at this point. In order for Shanghai to maintain its position in global financial markets the some changes brought by Fintech should trigger changes in financial regulations for financial institutions operating in the financial center. If regulations are not changed, the traditional banking systems will remain threatened as well as the new banking trends that were mainly protected by the decision of Chinese government to remain restricted to foreigners. Fintech firms in Shanghai are no longer protected by the government restrictions on international trade and stock markets. The financial sector needs a reform into the regulations in order to offer fair competition against foreign financial institutions looking to venture into Shanghai’s financial market.
3. Customer satisfaction has been highlighted together with other factors such as fear of risks, lack of funds and lack of knowledge as the main challenges that faced Fintech in Shanghai’s venture as an international financial center. The concept of customer satisfaction is important when discussing financial technology since the customers must be convinced before using the products offered by Fintech. Even so , customer satisfaction is not the only challenge that has faced Fintech in Shanghai since it contributes to a small ratio of determiners. Factors such as resistant of banks to collaboration with tech giants has made the development of Fintech slightly harder in the financial industry. This has led to a slow growth in acceptance rate around locals for Fintech products.
4. Despite challenges the study came up with certain opportunities of Fintech towards Shanghai international financial center growth and development. The growing prominence of online purchasing and internet banking among the large population in the workforce has had a promising impact on Shanghai’s financial technology. Fintech has been accepted by majority of people in the interviews help showing positive perception on Fintech products. Some banks are also collaborating with Fintech to embrace internet banking services that have provided a platform for growth and expansion of small businesses as well as online trade attracting more investors into the sector. Opportunities such as the growing use of smartphones in Shanghai have been attributed to the growing interest of people into the online purchasing services and online transactions. Access to internet connection has also contributed largely in making this venture a success. The digital evolution that has taken over all sectors including the financial sector has made sure there is quality and efficient services and products from Fintech companies attracting more capital and eventually growth to Shanghai’s financial sector. The number of people that prefer internet banking is slightly higher than the ones who still insists on traditional banking showing change and disruption of traditional financial status quo.

## Recommendations from the study

1. The financial institutions should be open to collaboration with Fintech companies in order to be competitive against other international financial organizations that offer same quality of services. Shanghai should encourage the combination efforts between banks and tech giants in order to promote the agenda to remain relevant as an international financial center.
2. Fintech companies should find and work out ways in which they can input direct human interaction to their products and services in order to attract more customers that are still stuck with traditional banking systems. The Fintech companies should avoid over reliance on AI and machine learning in order to have realistic human interventions that will satisfy customer’s human needs and expectations. Some human needs and expectations can only be met by fellow humans through direct human-human interaction which is crucial in satisfying clients and customers.
3. Fintech companies should take the advantage of the rise in the digital age trends such as increased use of smartphones and personalize their products and services to uniquely suit each customer’s needs and expectations. The Fintech companies should also have a target audience who will be easily accepting to their products and ideas as opposed to those that are still conservative. This can only be done through conducting research and understanding the factors that influence customer’s behavior.
4. Fintech companies should come up with creative marketing strategies that will help create awareness and knowledge on how their products and services operate. That way many people will have the right perception towards Fintech and therefore attract more capital to expand Shanghai’s international financial center prominence and growth.
5. The government and authorities in charge of Shanghai’s financial markets and sectors should implement and reform the financial regulations that existed in the past with consistent modification to best suit financial activities in the international financial center. This will create an environment to attract more investors into the growing financial market of Shanghai and China in general.

## Recommendations for further research.

* The study recommends future researchers investigate more on financial trends that are a result of Fintech to clearly make customers understand the concepts and aspects in play in the changing financial industry. Industry players such as banks and other tech giants should embrace research into matters of financial markets to help expand and grow the sector in general.
* Future studies should also be done to continue improving services and products that Fintech companies will provide to its clients and customers.

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